

Renewal Course Outline and Agenda

BLS Renewal Course Outline

Approximate course duration: 2 hours, 50 minutes (for all required lessons)

(Student-instructor ratio 6:1; student-manikin ratio 3:1)

Lesson times below are estimates and can vary from course to course.

Lesson	Course Event	Lesson Plan Actions and Time Estimate (in Minutes)
Precourse	Precourse Preparation	
1	Course Introduction	 5
2	1-Rescuer Adult BLS Part I: Adult Chain of Survival Part II: 1-Rescuer Adult BLS Part III: AED Practice Part IV: Bag-Mask Device	 30
3	2-Rescuer Child BLS Part I: Pediatric Chain of Survival Part II: Child BLS Part III: 2-Rescuer Child BLS Part IV: Adult CPR and AED Skills Test	 35
4	Team Dynamics Part I: Team Dynamics Part II: High-Performance Teams Activity	 21
5	Infant BLS Part I: Infant Compressions Part II: 2-Rescuer Infant BLS Part III: AED for Infants and Children Less Than 8 Years of Age Part IV: Infant CPR Skills Test	 40
6	Relief of Choking Part I: Adult and Child Choking Part II: Infant Choking	 9
7 (optional)	Special Considerations Part I: Mouth-to-Mouth Breaths Part II: Rescue Breathing Part III: Breaths With an Advanced Airway Part IV: Opioid-Associated Life-Threatening Emergency	 12

Lesson	Course Event	Lesson Plan Actions and Time Estimate (in Minutes)
8 (optional)	Local Protocols Discussion	 20
9	Conclusion	 5
10	Exam	 25
11	Remediation Part I: Skills Testing Remediation Part II: Exam Remediation	 15
Postcourse	Immediately After the Course	

Sample BLS Renewal Course Agenda Without Optional Lessons

6 Students, 1 BLS Instructor
Student-instructor ratio 6:1; student-manikin ratio 3:1
Total approximate time: 3 hours (with breaks)

8:00-8:05	Lesson 1: Course Introduction
8:05-8:35	Lesson 2: 1-Rescuer Adult BLS Part I: Adult Chain of Survival Part II: 1-Rescuer Adult BLS Part III: AED Practice Part IV: Bag-Mask Device
8:35-9:10	Lesson 3: 2-Rescuer Child BLS Part I: Pediatric Chain of Survival Part II: Child BLS Part III: 2-Rescuer Child BLS Part IV: Adult CPR and AED Skills Test
9:10-9:31	Lesson 4: Team Dynamics Part I: Team Dynamics Part II: High-Performance Teams Activity
9:31-9:41	Break
9:41-10:21	Lesson 5: Infant BLS Part I: Infant Compressions Part II: 2-Rescuer Infant BLS Part III: AED for Infants and Children Less Than 8 Years of Age Part IV: Infant CPR Skills Test
10:21-10:30	Lesson 6: Relief of Choking Part I: Adult and Child Choking Part II: Infant Choking
10:30-10:35	Lesson 9: Conclusion
10:35-11:00	Lesson 10: Exam

Part

5A

BLS Renewal Lesson Plans

Precourse

Precourse Preparation

Instructor Tips

Prepare for your role as a BLS Instructor well. Review all course materials and anticipate questions or challenges that may arise from students during the course. The time you invest in this part of your preparation is important to the overall success of every student.

Refer to “Part 2: Teaching the Course” in the Instructor Manual for further instruction on using Lesson Plans.

30 to 60 Days Before the Course

- Determine course specifics, such as
 - Your class audience, including their professions (in-facility or prehospital providers) and how the skills taught during this course will translate to their on-the-job performance
 - Number of participating students
 - Any special needs or equipment needed for the course
 - Reserve all needed equipment to teach the course. Refer to “Part 1: Preparing for the Course” in the Instructor Manual for a complete equipment list.
 - Schedule a room that meets the room requirements for the BLS Renewal Course. Refer to “Part 1: Preparing for the Course” in the Instructor Manual for detailed requirements.
 - Schedule additional instructors, if needed, depending on the size of the class.
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At Least 3 Weeks Before the Course

- Send participating students precourse letters, student materials, and the course agenda.
 - Confirm additional scheduled instructors, if needed.
 - Research local protocols that pertain to your area. This will help when answering students’ questions during the course. Refer to optional Lesson 8: Local Protocols Discussion for further detail and examples.
 - Also encourage students to know their local protocols before coming to class.
 - Confirm all students have the required prerequisite of a current BLS Provider course completion card.
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Day Before the Course

- Confirm room reservations and all required equipment needed are available for the course.
 - Set up the room and make sure that all technology and equipment are working properly. This can also be done the day of the course if the room is not accessible the day before.
 - Locate the nearest AED in the building and confirm the emergency response number.
 - Coordinate the roles and responsibilities with additional instructors, if needed, to fulfill the course agenda and to ensure efficiency and timing of the course, per the course agenda.
 - Ensure that all course paperwork is in order.
 - If using a timing app for the High-Performance Teams Activity, download the app and ensure it is working on a smartphone or tablet. Review the app before class to become familiar with the functionality.
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Lesson 1

Course Introduction

5 minutes

Instructor Tips

- Be familiar with the learning objectives and the BLS Renewal Course content. Knowing what you want to communicate, why it's important, and what you want to happen as a result are critical to the success of the course.
- Think about how you want to manage breaks during the course. Making yourself available allows you to answer questions people might feel too embarrassed to ask in front of everyone. It also gives you time to establish rapport and get feedback.



Play Video

The video will show and discuss

- Provider Stories



Discussion

- Introduce yourself and additional instructors, if present.
- Invite students to introduce themselves.
- Explain that the course is interactive. Refer to the following points (see detailed information for each throughout the Instructor Manual) for discussion with students:
 - Your role
 - Video-based learning
 - Review of each skill before skills practice
 - Practice while watching
 - Refer to “Part 2: Teaching the Course” in the Instructor Manual for detailed information about practice while watching
 - Use of the Provider Manual
 - Skills tests and exam
- Ask that any student who anticipates difficulties due to personal limitations, such as a medical concern or knee or back problems, speak with one of the instructors. Refer to “Part 1: Preparing for the Course” in the Instructor Manual for further explanation about students with special needs.
- Explain the layout of the building, including bathrooms and emergency exits.
- Remind students of where the nearest AED is located and what their emergency response number is.
- Describe the course agenda:
 - Inform students of breaks you have scheduled during the class.
 - Tell the students, “We are scheduled to end at ____.”
- Remind students what they will learn during the course. At the end of the BLS Renewal Course, learners will be able to
 - Describe the importance of high-quality CPR and its impact on survival
 - Describe all of the steps of the Chain of Survival

- Apply the BLS concepts of the Chain of Survival
- Recognize the signs of someone needing CPR
- Perform high-quality CPR for an adult
- Describe the importance of early use of an AED
- Demonstrate the appropriate use of an AED
- Provide effective ventilation by using a barrier device
- Perform high-quality CPR for a child
- Perform high-quality CPR for an infant
- Describe the importance of teams in multirescuer resuscitation
- Perform as an effective team member during multirescuer CPR
- Describe the technique for relief of foreign-body airway obstruction for an adult or child
- Describe the technique for relief of foreign-body airway obstruction for an infant
- Remind students of the course completion requirements:

Skills Test Requirements	Exam Requirements
Students must successfully pass these skills tests by being evaluated once in each role: <ul style="list-style-type: none"> • Adult CPR With AED Skills Test • Infant CPR Skills Test 	Score at least 84% on the exam

Instructor Notes

Next

1-Rescuer Adult BLS

Lesson 2

1-Rescuer Adult BLS

30 minutes

Part I: Adult Chain of Survival

Part II: 1-Rescuer Adult BLS (Practice While Watching)

Part III: AED Practice (Students Practice)

Part IV: Bag-Mask Device

Learning Objectives

Tell students that at the end of this lesson, they will be able to

- Describe the importance of high-quality CPR and its impact on survival
- Describe all of the steps of the Chain of Survival
- Apply the BLS concepts of the Chain of Survival
- Recognize the signs of someone needing CPR
- Provide effective ventilation by using a barrier device
- Perform high-quality CPR for an adult
- Describe the importance of early use of an AED
- Demonstrate the appropriate use of an AED

Instructor Tips

- Practice while watching: Remind students that they will be practicing while watching a video segment, so that they will be prepared and know to get in place for the practice video segment.
- Feedback: When providing feedback to students who are practicing, remember to focus on what you *do* want rather than what you *don't* want. Remember to always state feedback in a positive tone.
- Tell students to have their Provider Manual accessible during the course.
- When concluding a practice-while-watching session, ask all students if they are ready to move forward to the next skill or if they would like to repeat practice while watching.
- Familiarize yourself with all equipment that will be used in the class and how to assemble it so that
 - You know how to help students with the equipment during the course
 - You are able to troubleshoot any problems with the equipment

Choose which provider option to play for this lesson by selecting the in-facility or prehospital icon.

For students' review of this lesson, they can reference "Part 2: BLS for Adults" in the Provider Manual.



Play Video

The video will show and discuss

- Instruction: Adult Chain of Survival
- Instruction: 1-Rescuer Adult BLS



Video Pauses

- Have students position themselves at the side of their manikins per the video instructions.
- Tell students they will practice the entire 1-rescuer adult BLS sequence, including scene safety and assessment and 3 sets of 30 compressions, with 2 breaths at the end of each set of compressions.
- Tell students they will compress at a rate of 100 to 120/min, making sure compressions are at least 2 inches (5 cm) deep and allowing complete chest recoil.



Practice While Watching: 1-Rescuer Adult BLS

- Students will follow along with the video to complete the steps for scene safety and assessment, adult compressions, and pocket mask.

Scene Safety and Assessment

- Students will follow along with the video to complete the following actions:

These actions can be completed in a different order, but this sequence is followed during the practice-while-watching segment.

- Verify that the scene is safe for you and the victim.
- Check for responsiveness. Tap the victim’s shoulder and shout, “Are you OK?”
- Assess the victim for presence of a pulse and normal breathing.
- If the victim is not responsive, shout for nearby help.
- Activate the emergency response system in your setting.
- Get the AED and emergency equipment. If someone else is available, send that person to get it.

Adult Compressions

- Students will follow along with the video to complete the following steps:
 - Step 1: Position yourself at the victim’s side.
 - Step 2: Put the heel of one hand on the center of the victim’s chest, on the lower half of the breastbone (sternum).
 - Step 3: Put the heel of your other hand on top of the first hand.
 - Step 4: Straighten your arms and position your shoulders directly over your hands.
 - Step 5: Give chest compressions.
 - Press down at least 2 inches (5 cm) with each compression. Make sure you push straight down on the victim’s breastbone.
 - Deliver compressions at a rate of 100 to 120/min.
 - At the end of each compression, make sure you allow the chest to recoil (re-expand) completely.
 - Step 6: Minimize interruptions of chest compressions.

Pocket Mask

- Students will follow along with the video to complete the following steps:
 - Step 1: Position yourself at the victim’s side.
 - Step 2: Place the pocket mask on the victim’s face, using the bridge of the nose as a guide for correct position.

- Step 3: Seal the pocket mask against the face.
 - Using your hand that is closer to the top of the victim’s head, place the index finger and thumb along the edge of the mask.
 - Place the thumb of your other hand along the edge of the mask.
- Step 4: Place the remaining fingers of your second hand along the bony margin of the jaw, and lift the jaw. Perform a head tilt–chin lift to open the airway.
- Step 5: While you lift the jaw, press firmly and completely around the outside edge of the mask to seal the pocket mask against the face.
- Step 6: Deliver each breath over 1 second, enough to make the victim’s chest rise.
- Observe students and provide positive and corrective feedback on their performance.
 - Coach students on strengthening high-quality CPR.
- Repeat the practice-while-watching segment as many times as needed for all students to complete the practice session.

For students’ review of this portion of the lesson, they can reference “Part 3: AED for Adults and Children 8 Years of Age and Older” and “Part 2: BLS for Adults” in the Provider Manual.



Play Video

The video will show and discuss

- Instruction: AED
 - AED special considerations
 - Has a hairy chest
 - Is immersed in water or water is covering the victim’s chest
 - Has an implanted defibrillator or pacemaker
 - Has a transdermal medication patch or other object on the surface of the skin where the AED pads are to be placed



Video Pauses: AED Review

During the pause, show students the AED trainer and

- Explain how to use the AED trainer
- Emphasize following the AED prompts
- Remind students that the AED trainer in class will not give a real shock
- Direct students to have the AED trainers accessible
- Tell students they are now going to practice using the AED



Students Practice: AED

Lead students by instructing the following steps on how to use an AED. First show the steps while using your AED trainer, and then have students practice.

Instructions for Students

- Step 1: Open the carrying case. Power on the AED if needed.
 - Some devices will power on automatically when you open the lid or case.
 - Follow the AED prompts as a guide to next steps.

- Step 2: Attach AED pads to the victim's bare chest.
 - Choose adult pads (not child pads or a child system) for victims 8 years of age and older.
 - Peel the backing away from the AED pads.
 - Attach the adhesive AED pads to the victim's bare chest.
 - Place one AED pad on the victim's upper-right chest (directly below the collarbone). Place the other pad to the side of the left nipple, with the top edge of the pad a few inches below the armpit.
 - Attach the AED connecting cables to the AED box (some are preconnected).
- Step 3: Clear the manikin and analyze the rhythm.
 - If the AED prompts you, clear the victim during analysis. Be sure no one is touching the victim, not even the rescuer in charge of giving breaths.
 - Some AEDs will tell you to push a button to allow the AED to begin analyzing the heart rhythm; others will do that automatically. The AED may take a few seconds to analyze.
 - The AED then tells you if a shock is needed.
- Step 4: If the AED advises a shock, it will tell you to clear the victim.
 - Clear the victim before delivering the shock; be sure no one is touching the victim.
 - Loudly state a "clear the victim" message, such as "Everybody clear" or simply "Clear."
 - Look to be sure no one is in contact with the victim.
 - Press the shock button.
 - The shock will produce a sudden contraction of the victim's muscles.



Play Video

The video will show and discuss

- Instruction: Bag-Mask Device

Instructor Notes

Next

2-Rescuer Child BLS

Lesson 3

2-Rescuer Child BLS

35 minutes

Part I: Pediatric Chain of Survival

Part II: Child BLS

Part III: 2-Rescuer Child BLS (Practice While Watching)

Part IV: Adult CPR and AED Skills Test

Learning Objective

Tell students that at the end of this lesson, they will be able to

- Perform high-quality CPR for a child

Instructor Tip

- If you are using adult manikins for the child BLS practice, inform students that they may need to use 2 hands while performing CPR during practice because of the difficulty of compressing with 1 hand on the adult manikin. Remind students that the technique used for child CPR will depend on the size of the child and the physical ability of the person performing compressions.

Choose which provider option to play for this lesson by selecting the in-facility or prehospital icon.

For students' review of this lesson, they can reference "Part 5: BLS for Infants and Children" in the Provider Manual.



Play Video

The video will show and discuss

- Instruction: Pediatric Chain of Survival
- Instruction: Child BLS
 - 2-Rescuer Child CPR



Video Pauses

- Have students position themselves at the side of their manikins per the video instructions.
 - Tell students they will practice each role of the 2-rescuer child BLS sequence. Assign one student to play Rescuer 1 and the other student to play Rescuer 2.
 - After the first practice-while-watching segment, the video can be repeated for students to switch and practice the duties of the other role. Each student will complete 3 sets of 15:2.
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Practice While Watching: 2-Rescuer Child BLS

Students will follow along with the video to complete the following steps:

Rescuer 1

- Have Rescuer 1 position himself at the victim's side to perform chest compressions and to practice the following:
 - Compress at least one third the depth of the chest, about 2 inches (5 cm).
 - Compress at a rate of 100 to 120/min.
 - Allow the chest to recoil completely after each compression.
 - Minimize interruptions in compressions (try to limit any interruptions in chest compressions to less than 10 seconds).
 - Use a compression-to-ventilation ratio of 15:2.
 - Count compressions out loud.

Rescuer 2

- Have Rescuer 2 position herself at the victim's head and maintain an open airway by
 - Using a head tilt–chin lift or jaw thrust
 - Giving breaths with a bag-mask device, watching for chest rise and avoiding excessive ventilation
- Tell the second rescuer to encourage the first rescuer to perform compressions that are deep enough and fast enough and to allow complete chest recoil between compressions.
- Observe students and provide positive and corrective feedback on their performance.
 - Emphasize core concepts: push hard, push fast; allow complete chest recoil; when giving breaths, watch for chest rise; minimize interruptions.



Repeat Segment

- Have students switch roles and repeat the practice-while-watching segment.
- Repeat the practice-while-watching segment as many times as needed for all students to complete the practice session.



Skills Test: Adult CPR and AED

- For skills testing, it is important to be prepared and organized with student skills testing checklists. Review these before class, and have all materials ready to properly test students on every step.
- **To help students prepare, make sure they have access to and are able to review the skills testing checklist before skills testing.**

Discussion

Before the Adult CPR and AED Skills Test, read the following testing script aloud to the student (may be read to all students at once):

“This test is like a realistic emergency situation: you should do whatever you think is necessary to save the victim's life. You will have to determine for yourself what you need to do. For example, if you check the response on the manikin and there is no response, then you should do whatever you would do for a person who is not responding. I will read a short scenario to you, but I won't be able to answer any questions. You can treat me like another healthcare provider who has arrived with you and tell me to do something to help you. If you

make a mistake or forget to do something important, you should not stop. Just do your best to correct the error. Continue doing what you would do in an actual emergency until I tell you to stop. Do you have any questions before we start?”



Skills Test

- Refer to the Adult CPR and AED Skills Testing Checklist for specific direction on how to test students on adult BLS skills. This is found in “Part 3: Testing and Remediation” in the Instructor Manual.
 - Check off each skill as the student demonstrates competency per the critical skills descriptors.
 - After starting, if the student asks any questions about BLS skills or sequences, you should not give him or her the answer. Rather, tell the student, “Do what you think is best right now.” If the student asks questions about what to do with the manikin, tell the student, “Check the manikin yourself and do what you think is needed to save a life.” If the student seems unsure, do your best to explain that he or she will be assessing the manikin and doing whatever is necessary.
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Remediation

For students who need remediation, follow these steps and refer to Lesson 11: Remediation.

- Determine where the students are having trouble during their Adult CPR and AED Skills Test.
 - If needed, replay sections of video or practice skills to ensure learning.
 - Retest skills as necessary.
 - Some students may need additional practice or may need to repeat the course to demonstrate skills competency and to achieve a course completion card.
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Instructor Notes

Next

Team Dynamics

Lesson 4

Team Dynamics

21 minutes

Part I: Team Dynamics

Part II: High-Performance Teams Activity

Learning Objective

Tell students that at the end of this lesson, they will be able to

- Describe the importance of teams in multirescuer resuscitation

Instructor Tips

- When leading a discussion, ask your students open-ended questions that focus on their perspective to engage their minds and increase their participation.
- When answering a question, acknowledge the individual with eye contact, and then answer to the entire room, coming back to the questioner periodically.

Choose which provider option to play for this lesson by selecting the in-facility or prehospital icon.

For students' review of this lesson, they can reference "Part 4: Team Dynamics" in the Provider Manual.



Play Video

The video will show and discuss

- Good Team Dynamics Scenario



Video Pauses/Discussion: Team Dynamics Review

During the pause, ask students what successful team resuscitation behaviors they witnessed during the scenario. You can ask students the questions below for discussion:

- What behaviors worked well in the video?
- Were all responsibilities and roles identified for each team member?
- What were some effective team communication skills demonstrated in the video?

For instructor reference, find below effective communication skills for successful resuscitation teams:

• Successful Resuscitation Teams

1. Roles of each member
 - Clear roles and responsibilities
 - Knowing your limitations
 - Constructive intervention
 - Be tactful
2. What to communicate
 - Knowledge sharing
 - Frequently ask for observations

- Summarizing and reevaluating
 - Can help respond to the patient's changing condition
 - 3. How to communicate
 - Closed-loop communication
 - Confirm order
 - Call people by their names
 - Confirm intervention complete
 - Clear messages
 - Speak in a calm, confident manner
 - Mutual respect
 - Behave in a professional manner
 - Use a friendly, controlled voice
 - Avoid shouting or aggression
 - 4. Debriefing
 - Debrief together as a team
 - Debrief during and after resuscitation attempt
 - Debriefing may improve patient outcomes after cardiac arrest
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Play Video

- **Team Roles**
 - Compressor
 - Rescuer positioned at the victim's head: Airway
 - AED/Monitor/Defibrillator
 - Team Leader
 - Timer/Recorder
 - Administer Medications
 - **High-Performance Teams Activity Preparation**
 - Chest compression fraction
-

High-Performance Teams Activity

Your role during this activity is to watch multiple rescuers simultaneously, noting team function that can be used for your debriefing at the end of each case. You will complete the following:

- Present one 10-minute scenario, and follow with a 5-minute debriefing.
- The chest compression fraction (CCF) is the proportion of time that chest compressions are performed during a cardiac arrest. A CCF of at least 60% is recommended, and a goal of 80% is often achievable with good teamwork. In this lesson, to determine whether the team is successful in achieving this CPR quality indicator, you can compute the CCF by choosing one of the following options:

Option 1

- Use 2 stopwatches.

- Start one stopwatch as soon as you give the scenario to the team, and let it run continuously to the 10-minute mark (total resuscitation time). It will serve as a reminder to stop the case.
- The second stopwatch should be started and stopped as chest compressions are being performed.
- At the end of the case, to achieve a CCF of greater than 60%, the total chest compression time should be more than 6 minutes of the 10-minute scenario. To achieve a CCF of greater than 80%, the total chest compression time should be more than 8 minutes of the 10-minute scenario.

Option 2

- Download a resuscitation timing app to a smartphone or tablet. Some apps can be used to capture resuscitation data during training events as well as in real patient events.

Option 3

- Use a manikin that captures resuscitation data.



Students Practice

Have students position themselves into groups for the scenario and assign team roles. Let students know that they will first be given a scenario and then they will begin the High-Performance Teams Activity. Present the following scenario to each team:

“As part of a multirescuer emergency response team, you respond to a call about a 65-year-old woman who suddenly collapsed. Your team arrives within seconds of the incident, and you notice that compression-only CPR is being performed by a bystander.”

- Observe students and provide positive and corrective feedback on their performance.
 - Focus on coaching students through the teamwork.
 - Keeping in mind the components of high-quality CPR, watch for poor performance in any area, and then provide focused practice in those areas.
 - As the compressor gets closer to the end of the 2 minutes, ensure that the compressions are still of adequate rate and depth and that the compressor allows complete chest recoil (avoiding leaning on the chest).



Discussion: High-Performance Teams Activity Debriefing

- At the end of the scenario, debrief by allowing the team to say what they thought went well and what could have been better.
 - Disclose the CCF and discuss any strategies that could be incorporated to improve.
 - Talk about the other components of high-quality CPR and whether the team achieved these.
 - Let the team lead the discussion; ask open-ended questions to facilitate the discussion.
- Coach on how communication might be improved through the use of closed-loop communication. When communicating with resuscitation team members, the Team Leader should use closed-loop communication by taking these steps:
 - The Team Leader gives a message, order, or assignment to a team member.
 - By receiving a clear response and eye contact, the Team Leader confirms that the team member heard and understood the message.
 - The Team Leader listens for confirmation of task performance from the team member before assigning another task.

Next

Infant BLS

Lesson 5

Infant BLS

40 minutes

Part I: Infant Compressions (Practice While Watching)

Part II: 2-Rescuer Infant BLS (Practice While Watching)

Part III: AED for Infants and Children Less Than 8 Years of Age

Part IV: Infant CPR Skills Test

Learning Objective

Tell students that at the end of this lesson, they will be able to

- Perform high-quality CPR for an infant

Choose which provider option to play for this lesson by selecting the in-facility or prehospital icon.

For students' review of this lesson, they can reference "Part 5: BLS for Infants and Children" and "Part 6: AED for Infants and Children Less Than 8 Years of Age" in the Provider Manual.



Play Video

The video will show and discuss

- Instruction: Infant Compressions



Video Pauses

- Have students position themselves at the side of their manikins per the video instructions.
- Tell students they will practice infant chest compressions and will complete 3 sets of 30 compressions.



Practice While Watching: Infant Compressions

- Students will follow along with the video to complete the following steps:
 - Step 1: Place the infant on a firm, flat surface.
 - Step 2: Place 2 fingers in the center of the infant's chest, just below the nipple line, on the lower half of the breastbone. Do not press the tip of the breastbone.
 - Step 3: Push hard and fast at a depth of at least one third the depth of the chest (about 1½ inches [4 cm]). Deliver compressions at a rate of 100 to 120/min.
 - Step 4: At the end of each compression, make sure you allow the chest to recoil completely (re-expand); do not lean on the chest.
 - Step 5: Minimize interruptions between compression sets to less than 10 seconds.
- Observe students and provide positive and corrective feedback on their performance.
- Repeat the practice-while-watching segment as many times as needed for all students to complete the practice session.



Play Video

The video will show and discuss

- Instruction: 2-Rescuer Infant BLS
-



Video Pauses

- Have students position themselves at the side of their manikins per the video instructions.
 - Tell students they will practice each role of the 2-rescuer infant CPR sequence. Assign one student to play Rescuer 1 and the other student to play Rescuer 2.
 - After the first practice-while-watching segment, the video can be repeated for students to switch and practice the duties of the other role. Each student will complete 2 sets of 15:2.
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Practice While Watching: 2-Rescuer Infant BLS

Students will follow along with the video to complete the following steps:

- Scene safety and assessment

Rescuer 1

- Have Rescuer 1 position himself at the victim's side to perform chest compressions by using the 2 thumb–encircling hands technique and to practice the following:
 - Compress at least one third the depth of the infant's chest, about 1½ inches (4 cm).
 - Compress at a rate of 100 to 120/min.
 - Allow the chest to recoil completely after each compression.
 - Minimize interruptions in compressions (try to limit any interruptions in chest compressions to less than 10 seconds).
 - Use a compression-to-ventilation ratio of 15:2.
 - Count compressions out loud.

Rescuer 2

- Have Rescuer 2 position herself at the victim's head and maintain an open airway by
 - Using a head tilt–chin lift or jaw thrust
 - Giving breaths with a bag-mask device, watching for chest rise and avoiding excessive ventilation
 - Tell the second rescuer to encourage the first rescuer to perform compressions that are deep enough and fast enough and to allow complete chest recoil between compressions.
 - Observe students and provide positive and corrective feedback on their performance.
 - Emphasize core concepts: push hard, push fast; allow complete chest recoil; when giving breaths, watch for chest rise; minimize interruptions.
-



Repeat Segment

- Have students switch roles and repeat the practice-while-watching segment.
 - Repeat the practice-while-watching segment as many times as needed for all students to complete the practice session.
-



Play Video

The video will show and discuss

- Instruction: AED for Infants and Children Less Than 8 Years of Age

Infant High-Performance Teams Activity (Optional)

For additional student practice with high-performance teams, students can now complete the High-Performance Teams Activity using an infant scenario. Refer to Lesson 4: Team Dynamics for further detail on how to complete this activity with the following scenario:

“As part of a multirescuer emergency response team, you respond to a call from a parent who says her 9-month-old infant started having breathing difficulties after feeding.”



Skills Test: Infant CPR

- For skills testing, it is important to be prepared and organized with student skills testing checklists. Review these before class, and have all materials ready to properly test students on every step.
- **To help students prepare, make sure they have access to and are able to review the skills testing checklist before skills testing.**



Discussion

Before the Infant CPR Skills Test, read the following testing script aloud to the student (may be read to all students at once):

“This test is like a realistic emergency situation: you should do whatever you think is necessary to save the victim’s life. You will have to determine for yourself what you need to do. For example, if you check the response on the manikin and there is no response, then you should do whatever you would do for a person who is not responding. I will read a short scenario to you, but I won’t be able to answer any questions. You can treat me like another healthcare provider who has arrived with you and tell me to do something to help you. If you make a mistake or forget to do something important, you should not stop. Just do your best to correct the error. Continue doing what you would do in an actual emergency until I tell you to stop. Do you have any questions before we start?”



Skills Test

- Refer to the Infant CPR Skills Testing Checklist for specific direction on how to test students on infant BLS skills. This is found in “Part 3: Testing and Remediation” in the Instructor Manual.
 - Check off each skill as the student demonstrates competency per the critical skills descriptors.
- After starting, if the student asks any questions about BLS skills or sequences, you should not give him or her the answer. Rather, tell the student, “Do what you think is best right now.” If the student asks questions about what to do with the manikin, tell the student, “Check the manikin yourself and do what you think is needed to save a life.” If the student seems unsure, do your best to explain that he or she will be assessing the manikin and doing whatever is necessary.

Remediation

For students who need remediation, follow these steps and refer to Lesson 11: Remediation.

- Determine where the students are having trouble during their Infant CPR Skills Test.
- If needed, replay sections of video or practice skills to ensure learning.
- Retest skills as necessary.
- Some students may need additional practice or may need to repeat the course to demonstrate skills competency and to achieve a course completion card.

Instructor Notes

Next

Relief of Choking

Lesson 6

Relief of Choking

9 minutes

Part I: Adult and Child Choking

Part II: Infant Choking (Practice While Watching)

Learning Objectives

Tell students that at the end of this lesson, they will be able to

- Describe the technique for relief of foreign-body airway obstruction for an adult or child.
- Describe the technique for relief of foreign-body airway obstruction for an infant.

Choose which provider option to play for this lesson by selecting the in-facility or prehospital icon.

For students' review of this lesson, they can reference "Part 9: Choking Relief for Adults, Children, and Infants" in the Provider Manual.



Play Video

The video will show and discuss

- Instruction: Adult and Child Choking
 - Relief of Choking in a Responsive Adult or Child
 - Relief of Choking in an Unresponsive Adult or Child
- Instruction: Infant Choking
 - Relief of Choking in a Responsive Infant
 - Relief of Choking in an Unresponsive Infant



Video Pauses

- Have students position themselves per the video instructions.
- Tell students they will practice the relief of choking on a responsive infant and will complete 1 set of 5 back slaps and 5 chest thrusts.



Practice While Watching: Relief of Choking in a Responsive Infant

- Students will follow along with the video to complete the following steps:
 - Step 1: Kneel or sit with the infant in your lap.
 - Step 2: If it is easy to do, remove clothing from the infant's chest.
 - Step 3: Hold the infant facedown, with the head slightly lower than the chest, resting on your forearm. Support the infant's head and jaw with your hand. Take care to avoid compressing the soft tissues of the infant's throat. Rest your forearm on your lap or thigh to support the infant.

- Step 4: Deliver up to 5 back slaps forcefully between the infant’s shoulder blades, using the heel of your hand. Deliver each slap with sufficient force to attempt to dislodge the foreign body.
- Step 5: After delivering up to 5 back slaps, place your free hand on the infant’s back, supporting the back of the infant’s head with the palm of your hand. The infant will be adequately cradled between your 2 forearms, with the palm of one hand supporting the face and jaw while the palm of the other hand supports the back of the infant’s head.
- Step 6: Turn the infant as a unit while carefully supporting the head and neck. Hold the infant faceup, with your forearm resting on your thigh. Keep the infant’s head lower than the trunk.
- Step 7: Provide up to 5 quick downward chest thrusts in the middle of the chest, over the lower half of the breastbone (same as for chest compressions during CPR). Deliver chest thrusts at a rate of about 1 per second, each with the intention of creating enough force to dislodge the foreign body.
- Step 8: Repeat the sequence of up to 5 back slaps and up to 5 chest thrusts until the object is removed or the infant becomes unresponsive.
- Observe students and provide positive and corrective feedback on their performance.
- Repeat the practice-while-watching segment as many times as needed for all students to complete the practice session.



Video Stops

- Have students return to their seats for the conclusion of the course or to complete Lessons 7 and/or 8.

Instructor Notes

Next

Special Considerations (Optional),
Local Protocols Discussion
(Optional), or Conclusion

Lesson 7

Special Considerations (Optional)

12 minutes

Part I: Mouth-to-Mouth Breaths

Part II: Rescue Breathing (Practice While Watching)

Part III: Breaths With an Advanced Airway

Part IV: Opioid-Associated Life-Threatening Emergency

Choose which provider option to play for this lesson by selecting the in-facility or prehospital option.

For students' review of this lesson, they can reference "Part 7: Ventilation Techniques" and "Part 8: Opioid-Associated Life-Threatening Emergencies" in the Provider Manual.



Play Video

Navigate to the main menu of the video to play Special Considerations. The video will show and discuss

- Instruction: Mouth-to-Mouth Breaths
- Instruction: Rescue Breathing



Video Pauses

- Have students position themselves at the side of their manikins per the video instructions.
- Tell students they will practice rescue breathing on the manikin.



Practice While Watching: Rescue Breathing (Infants and Children)

- Students will follow along with the video to complete the following steps for infant and child rescue breathing:
 - Rescue breathing for infants and children
 - Give 1 breath every 3 to 5 seconds (about 12 to 20 breaths per minute).
 - Give each breath over 1 second.
 - Each breath should result in visible chest rise.
 - Check the pulse about every 2 minutes.
- Observe students and provide positive and corrective feedback on their performance.
- Repeat the practice-while-watching segment as many times as needed for all students to complete the practice session.



Play Video

The video will show and discuss

- Instruction: Breaths With an Advanced Airway
- Instruction: Opioid-Associated Life-Threatening Emergency

Next

Local Protocols Discussion (Optional) or Conclusion

Lesson 8

Local Protocols Discussion (Optional)

20 minutes

Instructor Tips

- Across the country, each EMS system develops treatment protocols based on local need, preference of administration, and medical direction. In many cases, these differ from established national standards. The course you are teaching may direct providers to act in ways that are not consistent with local treatment protocols. The AHA wishes to improve the chance of survival for every victim of cardiac arrest but does not wish to conflict with established local protocols.
- When you lead the discussion on local protocols, make sure you know what the local protocols are. If you are a member of the local EMS system, you should already be aware of local protocols, but if you are not, obtain and study them before the course so you can have a meaningful discussion.

The AHA does not endorse any particular resuscitation protocol or strategy. This discussion is a chance for students to articulate their protocols and to practice AHA skills within the context of their protocols.



Discussion

Lead students through discussion about high-performance teams and local protocols. Use the questions below to help guide this discussion:

- Does your system currently use a high-performance team approach to resuscitation?
- How can you incorporate high-performance teamwork into your department's protocols?
- What are some potential challenges to incorporating high-performance teamwork into your protocols?
- What are some potential challenges to high-performance teamwork in terms of location, patients, or equipment?
- Compare and contrast the local protocol with the AHA BLS Healthcare Provider Adult Cardiac Arrest Algorithm.

The following examples show some differences that may occur between what is taught in the course and local protocols; these are common differences. These sections are used only if students ask questions about these examples.

What to say when local protocols for chest compressions differ from what the course teaches:

In the course, you learned to do 30 high-quality chest compressions and then 2 breaths. This could differ from your local protocol, which may have you do 90 seconds of continuous chest compressions or 200 chest compressions before beginning breaths, or a variation of these.

- Follow the local protocol.
- The important factors in this lesson are to perform the compressions at a rate of 100 to 120/min, at least 2 inches in depth, while allowing the chest to recoil completely between compressions.
- Have the next compressor immediately ready to switch to minimize the interruption in compressions.

Studies show that patients who receive chest compressions at a rate of 100 to 120/min and a CCF of greater than 80% have a much better chance of survival.

What to say when local protocols for AED use differ from what the course teaches:

In the course, you learned to use the AED immediately after it arrives. This could differ from your workplace protocol, which may have you use the AED only after you do 200 chest compressions (or 2 minutes of CPR) or a variation of this.

- Follow the local protocol.
- Continue high-quality chest compressions up to the point of allowing the AED to analyze.
- Immediately begin chest compressions after a shock is delivered or the AED states “no shock advised.”
- Keep in mind that as time to defibrillation increases, the chances of survival decrease.

The greatest chance of survival from cardiac arrest is found when a patient receives high-quality CPR and early defibrillation.

What to say when local protocols for role assignment differ from what the course teaches:

In the course, you learned about the different roles that prehospital providers may have (compressor, recorder, etc). This could differ from your workplace protocol, which assigns you a role based on your role on the ambulance, fire engine, or other team.

- Follow the local protocol.
- Know your potential assignments ahead of time to reduce confusion in a real event.
- Make sure that the roles and responsibilities are clear so that interruptions in chest compressions are minimized and that teamwork is smooth and executed efficiently.
- It is critical for high-performance teams to practice in the same way that they will perform in real situations.
- Appoint a team leader (incident commander) who oversees the event, assesses the efficacy of efforts, and makes changes when less-than-adequate resuscitation performance is noted.
- A debriefing should occur after each scenario in a course and after each real resuscitation event, to optimize efforts in the future.

What to say when local protocols for use of a bag-mask device differ from what the course teaches:

In the course, you learned about providing ventilation with a bag-mask device. Your local protocol may call for chest compressions only, or 200 chest compressions before breaths, or use of a bag-mask device with a face mask for a short time until a supraglottic airway can be placed (as soon as possible), or a variation of these.

- Follow the local protocol.
- Provide only enough volume with each ventilation to make the chest rise (do not deliver large breaths that can potentially inhibit venous blood flow back into the chest).
- When delivering ventilation during CPR with an advanced airway, provide no more than 12 breaths per minute (excessive ventilation can increase intrathoracic pressure, can impede venous return, and may potentially reduce cerebral blood flow).

Lesson 9

Conclusion

5 minutes

Instructor Tips

- When summarizing what the course has covered, allow students to lead this discussion at times by asking 1 or 2 students (maximum, for class time efficiency) what they observed/learned during the course.
- During the summary and closing, provide students with clear direction on how they can further study and seek out additional resources provided by the AHA to help with postclassroom training.



Play Video

Navigate to the main menu of the video to play Conclusion. The video will provide a course summary.



Discussion

To conclude the course, discuss the following with students:

- Thank students for their participation.
- Summarize what students learned during the course. Refer to the BLS Renewal Course Outline.
- Ask students if they have any questions before the exam.

Instructor Notes

Next
Exam

Lesson 10

Exam

25 minutes

Instructor Tips

- During testing and remediation, be efficient with the use of multiple instructors in the room, assigning each a different role, especially when there is a high volume of students in the classroom. This will ensure effective remediation, a smooth process, and efficiency for completing the class on time.
- For the exam, make sure that students are provided an environment conducive to testing: quiet with minimal distractions and plenty of time to complete.



Discussion

Give students the following instructions for the exam:

- Tell students not to write on the exam.
- Students may not cooperate or talk to each other during the exam.
- Exams are open resource, and students are allowed to use the Provider Manual and any other accessible resources while taking the exam. Refer to “Part 2: Teaching the Course” in the Instructor Manual for details about open-resource exams.



Exam

- Distribute answer sheets and exams.
- As students complete the exam, collect their exams and begin to grade them.
- Regardless of their score, all students should be given their exam results and be allowed the opportunity to review and ask questions.

Remediation

- Students who scored less than 84% need immediate remediation.
- Provide remediation by giving a second test or by having students verbally answer each item they got incorrect, showing understanding of incorrect items.
- Upon successful remediation, students should show an improvement in being able to provide correct responses and an understanding of the correct response.

Instructor Notes

Next

Remediation

Lesson 11

Remediation

15 minutes

Part I: Skills Testing Remediation

Part II: Exam Remediation

Instructor Tips

- The formal remediation lesson is facilitated if a student did not successfully pass the exam or skills testing during the course.
- For further detail on remediation and retesting students, refer to “Part 3: Testing and Remediation” in the Instructor Manual.
- As an instructor, you will need to determine which section of the course the student is having trouble with.



Play Video: Skills Testing Remediation

- Replay scenarios, instruction, and/or practice-while-watching segments of the video as needed to ensure learning and for the student to have additional practice.
- Repeat practice until the student feels comfortable and is ready to move forward with the exam or skills test.
 - Some students may need additional practice or may need to repeat the course to demonstrate skills competency and to achieve a course completion card.
- Formal remediation should occur if all boxes on the skills testing checklist are not checked as complete.



Skills Test

- Retest BLS skills as necessary by using the skills testing checklists. Refer to Lessons 3 and 5 for additional instructions on administering the skills tests.



Exam

- Students who scored less than 84% need immediate remediation and will need to retake the exam. Refer to Lesson 10: Exam for additional instructions on how to administer the exam.
 - Provide remediation by giving a second test or by having students verbally answer each item they got incorrect, showing understanding of incorrect items.
 - Upon successful remediation, students should show an improvement in being able to provide correct responses and an understanding of the correct response.
 - Make sure that students are given their failed attempt exam to study with before retaking the exam.
 - Make sure to collect all exams and answer keys from all students at the end of the course/remediation.

Instructor Notes

Next

Immediately After the
Course

